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# Analysis of $\nu_e$ appearance from an off-axis $\nu_\mu$ beam utilizing neutrino energy spectrum

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T2K is a long baseline neutrino experiment in Japan using a 30 GeV proton beam at the J-PARC accelerator to produce an intense off-axis $\mu$ neutrino beam. One of its primary goals is to measure neutrino oscillation parameters by directly detecting $\nu_e$ that have oscillated from a $\nu_\mu$ beam. In this talk, I will describe the recent 2013 $\nu_e$ appearance oscillation analysis using the reconstructed neutrino energy spectrum by means of a maximum likelihood fit. The data used for this analysis corresponds to $6.93\times10^{20}$ POT. I will also go over recent improvements to the analysis and present the newest results.

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